

Amendment After Final Rejection
Serial No. 09/663,585

Docket No. PHD 99-124

IN THE CLAIMS:

Kindly replace the claims with the following:

1. (Currently Amended) A method of recognizing a speech utterance (s) available in spelled form, comprising:

a first processing stage in which a corresponding letter sequence (r) is estimated by means of a letter speech recognition unit (2) based on hidden Markov Models, said letter speech recognition unit not using a letter grammar which denotes probabilities of the occurrence of different possible letter combinations; and

a second processing stage (3) in which the estimated result (r) produced by the first processing stage utilizing a statistical letter sequence model (4) and a statistical model (5) for the speech recognition unit (2) is post-processed, wherein a dynamic programming method is used during the post-processing wherein a grid structure on which the dynamic programming is based and whose node points are provided for the assignment to accumulated probability values, is converted into a tree structure and an A* algorithm is used for finding an optimum tree path.

2. (Previously Amended) The method as claimed in claim 1, wherein sub-optimum tree paths corresponding to N best estimates are determined for a speech utterance input with $N > 1$.

3. (Currently Amended) The method as claimed in claim 1, wherein during the search for an optimum tree path those tree paths that at the beginning of the search have a small probability are not searched.

Amendment After Final Rejection
Serial No. 09/663,585

Docket No. PHD 99-124

4. (Previously Amended) The method as claimed in claim 3, wherein the first processing stage is executed by means of a first IC and the second processing stage is executed by means of a second IC.

5. (Currently Amended) A method of system control by means of speech signals (w,s) comprising the steps of;

inputting a whole word (w) serving as a control signal and at least part of this word is input in spelled form (s),

recognizing the whole word (w) that is input using word speech recognition (7) and letter speech recognition (1) for recognizing the spelled part (s), the letter speech recognition unit comprising:

a first processing stage in which a corresponding letter sequence (r) is estimated by means of a letter speech recognition unit (2) based on hidden Markov Models, said letter speech recognition unit not using a letter grammar which denotes probabilities of the occurrence of different possible letter combinations; and

a second processing stage (3) in which the estimated result (r) produced by the first processing stage utilizing a statistical letter sequence model (4) and a statistical model (5) for the speech recognition unit (2) is post-processed, wherein a dynamic programming method is used during the post-processing, wherein a grid structure on which the dynamic programming is based and whose node points are provided for the assignment to accumulated probability values, is converted into a tree structure and an A* algorithm is used for finding an optimum tree path; and

~~restricting the recognition result (s) of the letter speech recognition (1)~~

Amendment After Final Rejection
Serial No. 09/663,585

Docket No. PHD 99-124

with restricting a vocabulary assigned to the word speech recognition (7) to the recognition results of the letter speech recognition (1).

6 (Previously Amended) A speech-controlled navigation system comprising:

first and second processing units for executing code for:

receiving a whole word (w) serving as a control signal and at least part of this word is received in spelled form (s);

recognizing the whole word (w) using word speech recognition,
recognizing the spelled part (s) using letter speech recognition (1)

and

~~restricting the recognition results of the letter speech recognition~~
(1) to a vocabulary assigned to the word speech recognition (7) to the recognition results of the letter speech recognition (1).